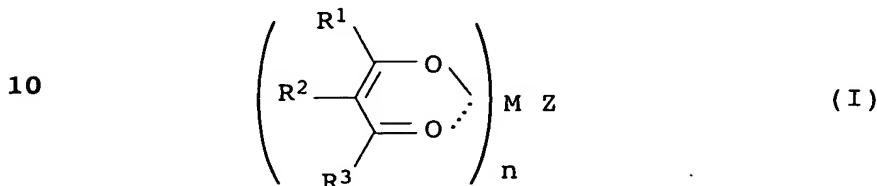


We claim:-

- 5 1. A process for preparing polyoxymethylene by contacting a formaldehyde source with a catalyst of the formula I



15 where

M is TiO_2 , ZrO_2 , HfO_2 , VO_2 , CrO_2 , MoO_2 , WO_2 , MnO_2 , ReO_2 , Fe , Ru , Co , Rh , Ir , Ni , Pd , Pt , Cu , Zn , Cd , Hg , Sn , SnO or PbO ;

20 R^1 , R^2 and R^3 are each independently a radical which is selected from H, alkyl, aryl and aralkyl, and the radical may be partly or fully halogenated;

25 Z is an anion; and

n is 1 or 2.

2. A process as claimed in claim 1 where

30 M is MoO_2 or WO_2 .

3. A process as claimed in any of the preceding claims where

35 R^1 , R^2 and R^3 are each independently H, $\text{C}_1\text{-C}_6$ -alkyl which may be partly or fully halogenated, phenyl, benzyl or naphthyl.

40 4. A process as claimed in claim 3 where R^1 and R^3 are each independently methyl, tert-butyl, trifluoromethyl, pentafluoroethyl, heptafluoropropyl, phenyl or naphthyl.

45 5. A process as claimed in claim 4 where R^2 is H or methyl.

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6. A process as claimed in any of the preceding claims where

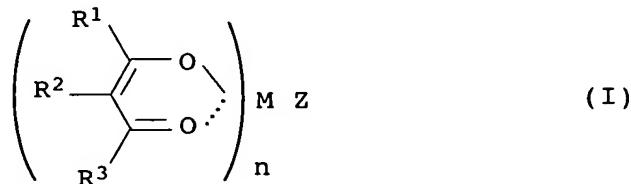
5 Z is a halide, sulfonate of the formula OSO_2R , where R is
 alkyl, partly or fully halogenated alkyl or aryl,
 complexed borate, complexed phosphate, complexed arsenate
 or complexed antimonate.

7. A process as claimed in claim 6 where

10 Z is OSO_2CF_3 or chloride.

8. A process as claimed in any of the preceding claims where the
 formaldehyde source is formaldehyde, trioxane or
 paraformaldehyde.

15 9. A catalyst of the formula I,



25 where

M is TiO , ZrO , HfO , VO , CrO_2 , MoO_2 , WO_2 , MnO_2 , ReO_2 , Fe , Ru ,
 Co, Rh, Ir, Ni, Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO ;

30 R^1 , R^2 and R^3 are independently a radical which is selected
 from H, alkyl, aryl and aralkyl and the radical may be
 partly or fully halogenated;

35 Z is an anion; and

n is 1 or 2.

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